

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

H10NM
Rev. 2

Garlick

209/AH-1G

February 4, 2009

TYPE CERTIFICATE DATA SHEET NO. H10NM

This data sheet, which is part of Type Certificate No. H10NM, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Rotorcraft Development Corporation
132 Skalkaho Hwy.
Hamilton, Montana 59840

Type Certificate Holder Record: Garlick Helicopter Corporation transferred TC H12NM to Rotorcraft Development Corporation on November 17, 2008.

Garlick Helicopter, Inc. transferred TC H10NM to Garlick Helicopter Corporation on June 29, 2007.

Model 209/AH-1G 2 PL (Utility Helicopter Restricted Category) approved September 10, 1990

Engine Lycoming T-53-L13B series

Fuel Mil-T-5624, Grade JP-4; alternate fuel
Mil-T-5624, Grade JP-5; See TM 55-1520-221-10 for substitute and emergency fuels

Engine Limits	Torque Pressure (p.s.i.)	Output r.p.m.	Exhaust Gas Temperature (°C)
	50.0 - 1100 H.P. Max.	6700 - Max.	625 10 seconds
	See Chapter 7	6600 continuous	610 continuous
	Max. torque Charts		

Rotor Limits	Power Off	Power On
	Maximum 339 r.p.m.	Maximum 324 r.p.m.
	Minimum 294 r.p.m.	Minimum 294 r.p.m.
	Continuous operations 294-324 r.p.m.	

Airspeed Limits Never Exceed 190 knots up to and including 9500 lbs. G.W. sea level to 4000 feet. (See airspeed operating limits chart for mission configuration limits.)

C.G. Range Longitudinal C.G. Limits:
(+192.0) to (+200.0) to 9500 lbs. and above
(+191.0) to (+201.0) to 8300 lbs.
(+190.0) to (+201.0) to 7000 lbs. or less.
For further calculations, see Chapter 6.

Maximum Weight 9500 lbs.

Minimum Crew 1 (pilot)

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Maximum Passengers	1 (One)
Maximum Baggage	Ammo bay may be used for baggage or equipment. Refer to loading data, Chapter 6.
Fuel Capacity Useable:	260 U.S. gals if Crashworthy Fuel System is installed. 270 U.S. gals if Crashworthy Fuel System is not installed.
Oil Capacity	2.9 gals.
Control Movements	For rigging information, refer to Technical Manual: TM 55-1520-221-34.
Serial No. Eligible	67-15737
Datum Leveling Means	See Weight and Balance Pertinent to All Models.
Certification Basis	FAR 21.25(a)(2) effective February 1, 1965. Type Certificate No. H10NM issued for the purpose of: (1) External Load Operations. Carrying of External Loads as defined in FAR 133.1(b), effective December 20, 1976. (2) Agricultural aircraft operations as defined in FAR 137.3, effective January 1, 1966, and for dispensing of Fire Fighting Materials.
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see certificate basis) must be installed in each helicopter for certification. In addition, the following are required: U.S. Army TM 55-1520-221-10 Operations Manual AH-1G/TH-1G. All external equipment and its attachments installed on this aircraft, other than outlined in TM 55-1520-221-10 must be FAA Approved Equipment listed in Garlick Helicopters, Inc., Drawing List GH-DL-1, FAA Approved September 10, 1990, or later approved revision.
NOTE 1.	Current weight and balance report including list of equipment included in certificated empty weight and loading instructions must be in each helicopter at time of original airworthiness certification and at all times thereafter. Refer to pages 6-23 and 6-24 of Operations Manual (TM 55-1520-221-10) or Appendix D of Maintenance Manual (TM 55-1520-221-23) for CG determination and use of ballast if required.
NOTE 2.	EXTERNAL LOAD OPERATION In accordance with Federal Aviation Administration approved Garlick Helicopters, Inc., Model AH-1G Rotorcraft Flight Manual Supplement.
NOTE 3.	(a) FAA Airworthiness Directives for all Lycoming engines T5313 (T53-L-13) series must be reviewed for applicability and complied with accordingly. (b) This type certificate may not be used by any other person or entity without written permission from the type certificate holder.
NOTE 4.	This model helicopter must be serviced and maintained in compliance with TM 55-1520-221-10 and TM 55-1520-221-23. Repairs to be made in accordance with TM 55-1520-221-34. Component overhaul intervals and replacement time shall be in accordance with the TBO/Replacement Schedule found in TM 55-1520-221-23 unless superseded by appropriate Airworthiness Directive.
NOTE 5.	Special Inspection Requirements: Refer to Garlick Helicopters, Inc., Drawing No. GH-005 for instructions on 50-hour visual inspection of the

Lift Beam Assy. P/N 209-030-141.

- NOTE 6. Torque pressure output by the engine torque sensing system varies with individual engines. A calibration of this value is required on each engine and the value corresponding to take-off power is stamped on the engine data plate.
- NOTE 7. Gas producer speed as shown under "Engine Limits" are maximum permissible speeds. The gas producer speed for rated power outputs varies with individual engines and must be determined during engine calibration and stamped on the engine data plate. The rated gas producer speed shown on the temperature limit placard installed on the instrument panel must correspond to the data plate.
- NOTE 8. Maximum permissible exhaust gas temperature varies with ambient temperature as described in the Operators Manual. Check engine EGT by use of Health Indicator Test (HIT) prior to take-off (see TM 55-1520-221-10 and HIT Log for the aircraft).
- NOTE 9. All FAA Airworthiness Directives affecting this Type Certificate must be complied with.
- NOTE 10. In the furtherance of safety and continued airworthiness, Military M.W.O.'s (Military Service Bulletins) and model type improvements will be reviewed for applicability by the Type Certificate holder and may be incorporated by the FAA Form 337.

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